



Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete If Known	
				Application Number	10/550,518
Sheet 1 of 5				Filing Date	§ 371 Date: September 26, 2005
				First Named Inventor	BACHMANN, Martin F.
				Art Unit	1633
				Examiner Name	LI, Qian Janice
				Attorney Docket Number	1700.0630000/BJD/WBC

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (If Known)			
	AG3	US- 5,057,540	10/15/1991	Kensil <i>et al.</i>	
	AH3	US- 5,071,651	12/10/1991	Sabara <i>et al.</i>	
	AI3	US- 5,374,426	12/20/1994	Sabara <i>et al.</i>	
	AJ3	US- 5,962,636	10/05/1999	Bachmaier <i>et al.</i>	
	AK3	US- 5,989,868	11/23/1999	Harrison <i>et al.</i>	
	AA4	US- 6,949,520 B1	09/27/2005	Hartmann <i>et al.</i>	
	AB4	US- 2001/0044416 A1	11/22/2001	McCluskie <i>et al.</i>	
	AC4	US- 2003/0050268 A1	03/13/2003	Krieg <i>et al.</i>	
	AD4	US- 2003/0050263 A1	03/13/2003	Krieg <i>et al.</i>	
	AE4	US- 2003/0060440 A1	03/27/2003	Klinman <i>et al.</i>	
	AF4	US- 2003/0087848 A1	05/08/2003	Bratzler <i>et al.</i>	
	AG4	US- 2003/0099668 A1	05/29/2003	Bachmann <i>et al.</i>	
	AH4	US- 2004/0005338 A1	01/08/2004	Bachmann <i>et al.</i>	
	AI4	US- 2005/0101557 A1	05/12/2005	Krieg <i>et al.</i>	
	AJ4	US- 2005/0169888 A1	08/04/2005	Hartmann <i>et al.</i>	
	AK4	US- 2006/0286070 A1	12/21/2006	Hartmann <i>et al.</i>	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	† ⁶
		Country Code ⁴ Kind Code ⁵ (if known)				
	AP9	EP 0 468 520 A2	01/29/1992	Tokunaga <i>et al.</i>		
	AL10	WO 94/02499 A1	02/03/1994	Padmapriya <i>et al.</i>		
	AM10	WO 95/26204 A1	10/05/1995	Hutcherson <i>et al.</i>		
	AN10	WO 96/02555 A1	02/01/1996	Krieg		
	AO10	EP 0 772 619 B1	05/14/1997	Krieg <i>et al.</i>		
	AP10	WO 97/28259 A1	08/07/1997	Carson <i>et al.</i>		

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³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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Examiner Name	LI, Qian Janice
Attorney Docket Number	1700.0630000/BJD/WBC

Sheet

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	AL11	WO 98/18810 A1	05/07/1998	Krieg et al.		
	AM11	EP 0 855 184 A1	07/29/1998	Lipford et al.		
	AN11	WO 98/33517 A1	08/06/1998	Foster et al.		
	AO11	WO 98/50071 A1	11/12/1998	Granoff et al.		
	AP11	WO 98/52581 A1	11/26/1998	Davis et al.		
	AL12	WO 98/55495 A2	12/10/1998	Schwartz et al.		

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¹For further information, consult the appropriate Japanese authorities.
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	AN13	WO 00/23955 A1	04/27/2000	Schiller <i>et al.</i>		
	AO13	WO 02/10416 A1	02/07/2002	Gowans <i>et al.</i>		
	AP13	WO 03/030656 A2	04/17/2003	Babiuk <i>et al.</i>		
	AL14	WO 03/040308 A2	05/15/2003	Klinman <i>et al.</i>		
	AM14	WO 03/045431 A2	06/05/2003	Vicari <i>et al.</i>		
	AN14	WO 2004/009124 A2	01/29/2004	Bachmann <i>et al.</i>		

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	AO14	WO 2004/071493 A1	08/26/2004	Burkhard		
	AP14	WO 2005/004907 A1	01/20/2005	Bachmann <i>et al.</i>		
	AL15	WO 2005/014110 A1	02/17/2005	Bachmann <i>et al.</i>		
	AM15	WO 2005/042018 A2	05/12/2005	Uhlmann <i>et al.</i>		
	AN15	WO 2006/032674 A1	03/30/2006	Bachmann <i>et al.</i>		

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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL103	Allison (1994) Int J Technol Assess Health Care 10(1):107-20 -- Adjuvants and immune enhancement. Cambridge University Press	
	NPL104	Ballas, <i>et al.</i> (1996) J Immunol 157(5):1840-5 -- Induction of NK activity in murine and human cells by CpG motifs in oligodeoxynucleotides and bacterial DNA. The American Association of Immunologists	
	NPL105	Bartholomé, <i>et al.</i> (1999) J Interferon Cytokine Res 19(5):471-8 -- IFN- β interferes with the differentiation of dendritic cells from peripheral blood mononuclear cells: selective inhibition of CD40-dependent interleukin-12 secretion. Mary Ann Liebert, Inc.	
	NPL106	Beaucage, <i>et al.</i> (1981) Tet Lett 22(20):1859-62 -- Deoxynucleoside Phosphoramidites-A New Class of Key Intermediates for Deoxypolynucleotide Synthesis. Pergamon Press Ltd.	
	NPL107	Blackwell, <i>et al.</i> (April 2003) J Immunol 170(8):4061-8 -- CpG-A-induced monocyte IFN- γ -inducible protein-10 production is regulated by plasmacytoid dendritic cell-derived IFN- α . The American Association of Immunologists, Inc.	
	NPL108	Bousquet, <i>et al.</i> (1998) J Allergy Clin Immunol 102(4 Pt 1):558-62 -- Allergen immunotherapy: Therapeutic vaccines for allergic diseases. Mosby, Inc.	
	NPL109	Branda, <i>et al.</i> (1996) J Lab Clin Med 128(3):329-38 -- Amplification of antibody production by phosphorothioate oligodeoxynucleotides. Mosby-Year Book, Inc.	
	NPL110	Cella, <i>et al.</i> (1999) Nat Med 5(8):919-23 -- Plasmacytoid monocytes migrate to inflamed lymph nodes and produce large amounts of type I interferon. Nature America Inc.	
	NPL111	Cella, <i>et al.</i> (1999) J Exp Med 189(5):821-9 -- Maturation, activation, and protection of dendritic cells induced by double-stranded RNA. The Rockefeller University Press	
	NPL112	Choi, <i>et al.</i> (2000) Virology 275(2):249-57 -- Packaging of tobacco mosaic virus subgenomic RNAs by Brome mosaic virus coat protein exhibits RNA controlled polymorphism. Academic Press	

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	NPL113	Choi, <i>et al.</i> (January 2002) Proc Natl Acad Sci U S A 99(2):655-60 -- tRNA elements mediate the assembly of an icosahedral RNA virus. National Academy of Sciences	
	NPL114	Clark, <i>et al.</i> (2001) J Gen Virol 82(Pt 11):2791-7 -- Immunity against both polyomavirus VP1 and a transgene product induced following intranasal delivery of VP1 pseudocapsid-DNA complexes. Society for General Microbiology	
	NPL115	Cooper, <i>et al.</i> (August 2004) Vaccine 22(23-24):3136-43 -- Safety and immunogenicity of CPG 7909 injection as an adjuvant to Fluorix influenza vaccine. Elsevier Ltd.	
	NPL116	Dalpke, <i>et al.</i> (February 2002) Immunology 106(1):102-12 -- Phosphodiester CpG oligonucleotides as adjuvants: polyguanosine runs enhance cellular uptake and improve immunostimulative activity of phosphodiester CpG oligonucleotides <i>in vitro</i> and <i>in vivo</i> . Blackwell Science Ltd.	
	NPL117	Gavett, <i>et al.</i> (1995) J Exp Med 182(5):1527-36 -- Interleukin 12 inhibits antigen-induced airway hyperresponsiveness, inflammation, and Th2 cytokine expression in mice. The Rockefeller University Press	
	NPL118	Goeckeritz, <i>et al.</i> (1999) Int Immunol 11(10):1693-700 -- Multivalent cross-linking of membrane Ig sensitizes murine B cells to a broader spectrum of CpG-containing oligodeoxynucleotide motifs, including their methylated counterparts, for stimulation of proliferation and Ig secretion. Oxford University Press	
	NPL119	Gursel, <i>et al.</i> (2001) J Immunol 167(6):3324-8 -- Sterically stabilized cationic liposomes improve the uptake and immunostimulatory activity of CpG oligonucleotides. The American Association of Immunologists	
	NPL120	Häcker, <i>et al.</i> (1998) EMBO J 17(21):6230-40 -- CpG-DNA-specific activation of antigen-presenting cells requires stress kinase activity and is preceded by non-specific endocytosis and endosomal maturation. Oxford University Press	
	NPL121	Halperin, <i>et al.</i> (June 2003) Vaccine 21(19-20):2461-7 -- A phase I study of the safety and immunogenicity of recombinant hepatitis B surface antigen co-administered with an immunostimulatory phosphorothioate oligonucleotide adjuvant. Elsevier Science Ltd.	
	NPL122	Halpern, <i>et al.</i> (1996) Cell Immunol 167(1):72-8 -- Bacterial DNA induces murine interferon-γ production by stimulation of interleukin-12 and tumor necrosis factor-α. Academic Press, Inc.	

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	NPL123	Hartmann, <i>et al.</i> (2000) J Immunol 164(2):944-52 -- Mechanism and function of a newly identified CpG DNA motif in human primary B cells. The American Association of Immunologists	
	NPL124	Hartmann, <i>et al.</i> (1999) Proc Natl Acad Sci U S A 96(16):9305-10 -- CpG DNA: a potent signal for growth, activation, and maturation of human dendritic cells. National Academy of Sciences	
	NPL125	Heal, <i>et al.</i> (2000) Vaccine 18:251-8 -- Expression and immunogenicity of a liver stage malaria epitope presented as a foreign peptide on the surface of RNA-free MS2 bacteriophage capsids. Elsevier Science Ltd.	
	NPL126	Heath (1994) Cancer Biother 9(1):1-6 -- Cytokines and the rational choice of immunological adjuvants. Mary Ann Liebert, Inc.	
	NPL127	Hsu, <i>et al.</i> (1996) Nat Med 2(5):540-4 -- Immunoprophylaxis of allergen-induced immunoglobulin E synthesis and airway hyperresponsiveness <i>in vivo</i> by genetic immunization. Nature Publishing Group	
	NPL128	Iho, <i>et al.</i> (1999) J Immunol 163(7):3642-52 -- Oligodeoxynucleotides containing palindrome sequences with internal 5'-CpG-3' act directly on human NK and activated T cells to induce IFN- γ production <i>in vitro</i> . The American Association of Immunologists	
	NPL129	Jiang, <i>et al.</i> (1999) Vaccine 17(7-8):1005-13 -- Heterotypic protection from rotavirus infection in mice vaccinated with virus-like particles. Elsevier Science Ltd.	
	NPL130	Jiang, <i>et al.</i> (1999) Hum Gene Ther 10(16):2627-36 -- A genetically engineered spleen necrosis virus-derived retroviral vector that displays the HIV type 1 glycoprotein 120 envelope peptide. Mary Ann Liebert, Inc.	
	NPL131	Joelson, <i>et al.</i> (1997) J Gen Virol 78:1213-7 -- Presentation of a foreign peptide on the surface of tomato bushy stunt virus. Society for General Microbiology	
	NPL132	Kerkmann, <i>et al.</i> (May 2003) J Immunol 170(9):4465-74 -- Activation with CpG-A and CpG-B oligonucleotides reveals two distinct regulatory pathways of type I IFN synthesis in human plasmacytoid dendritic cells. The American Association of Immunologists, Inc.	

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	NPL133	Kline, <i>et al.</i> (1998) J Immunol 160(6):2555-9 -- Cutting Edge: Modulation of airway inflammation by CpG oligodeoxynucleotides in a murine model of asthma. The American Association of Immunologists	
	NPL134	Kline, <i>et al.</i> (February 2002) Am J Physiol Lung Cell Mol Physiol 283(1):L170-9 -- Treatment of established asthma in a murine model using CpG oligodeoxynucleotides. The American Physiological Society	
	NPL135	Klinman (April 2004) Nat Rev Immunol 4(4):249-58 -- Immunotherapeutic uses of CpG oligodeoxynucleotides. Nature Publishing Group	
	NPL136	Klinman, <i>et al.</i> (1996) Proc Natl Acad Sci U S A 93(7):2879-83 -- CpG motifs present in bacterial DNA rapidly induce lymphocytes to secrete interleukin 6, interleukin 12, and interferon γ . National Academy of Sciences	
	NPL137	Klinman, <i>et al.</i> (July 2004) Vaccine 22(21-22):2881-6 -- CpG oligonucleotides improve the protective immune response induced by the anthrax vaccination of rhesus macaques. Elsevier Ltd.	
	NPL138	Krieg (1999) Biochim Biophys Acta 1489(1):107-16 -- Mechanisms and applications of immune stimulatory CpG oligodeoxynucleotides. Elsevier Science B.V.	
	NPL139	Krieg (October 2002) Annu Rev Immunol 20:709-60 -- CpG motifs in bacterial DNA and their immune effects. Annual Reviews	
	NPL140	Krieg, <i>et al.</i> (2001) Curr Opin Mol Ther 3(1):15-24 -- Enhancing vaccines with immune stimulatory CpG DNA. PharmaPress Ltd.	
	NPL141	Krieg, <i>et al.</i> (1995) Nature 374(6522):546-9 -- CpG motifs in bacterial DNA trigger direct B-cell activation. Nature Publishing Group	
	NPL142	Krieg, <i>et al.</i> (1996) Antisense Nucleic Acid Drug Dev 6(2):133-9 -- Oligodeoxynucleotide modifications determine the magnitude of B cell stimulation by CpG motifs. Mary Ann Liebert, Inc.	

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			Application Number	10/550,518	
			Filing Date	§ 371 Date: September 26, 2005	
			First Named Inventor	BACHMANN, Martin F.	
			Art Unit	1633	
			Examiner Name	LI, Qian Janice	
Sheet	5	of	8	Attorney Docket Number	1700.0630000/BJD/WBC

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	NPL143	Krug, <i>et al.</i> (April 2003) J Immunol 170(7):3468-77 -- CpG-A oligonucleotides induce a monocyte-derived dendritic cell-like phenotype that preferentially activates CD8 T cells. The American Association of Immunologists, Inc.	
	NPL144	Lechner, <i>et al.</i> (January 2002) Intervirology 45(4-6):212-7 -- Virus-like particles as a modular system for novel vaccines. S. Karger AG, Basel	
	NPL145	Lee, <i>et al.</i> (2000) J Immunol 165(7):3631-9 -- Effects of a hexameric deoxyriboguanosine run conjugation into CpG oligodeoxynucleotides on their immunostimulatory potentials. The American Association of Immunologists	
	NPL146	Leibl, <i>et al.</i> (1998) Vaccine 16(4):340-5 -- Adjuvant/carrier activity of inactivated tick-borne encephalitis virus. Elsevier Science Ltd.	
	NPL147	Liljas, <i>et al.</i> (1994) J Mol Biol 244(3):279-90 -- Crystal structure of bacteriophage fr capsids at 3.5 Å resolution. Academic Press Limited	
	NPL148	Liu, <i>et al.</i> (1998) Blood 92(10):3730-6 -- Immunostimulatory CpG oligodeoxynucleotides enhance the immune response to vaccine strategies involving granulocyte-macrophage colony-stimulating factor. The American Society of Hematology	
	NPL149	Luo, <i>et al.</i> (1998) Virology 240(2):316-25 -- Induction of V3-specific cytotoxic T lymphocyte responses by HIV gag particles carrying multiple immunodominant V3 epitopes of gp120. Academic Press	
	NPL150	Mahon (2001) Curr Med Chem 8(9):1057-75 -- The rational design of vaccine adjuvants for mucosal and neonatal immunization. Bentham Science Publishers Ltd.	
	NPL151	Notka, <i>et al.</i> (2000) Vaccine 18(3-4):291-301 -- Accelerated clearance of SHIV in rhesus monkeys by virus-like particle vaccines is dependent on induction of neutralizing antibodies. Elsevier Science Ltd.	
	NPL152	Oxenius, <i>et al.</i> (1999) J Virol 73(5):4120-6 -- CpG-containing oligonucleotides are efficient adjuvants for induction of protective antiviral immune responses with T-cell peptide vaccines. American Society for Microbiology	

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	NPL153	Pestka (1986) Methods Enzymol 119:14-23 -- Interferon standards and general abbreviations. Academic Press, Inc.	
	NPL154	Pisetsky, <i>et al.</i> (1994) Life Sci 54(2):101-7 -- Stimulation of murine lymphocyte proliferation by a phosphorothioate oligonucleotide with antisense activity for herpes simplex virus. Pergamon Press Ltd.	
	NPL155	Pushko, <i>et al.</i> (1993) Protein Eng 6(8):883-91 -- Analysis of RNA phage <i>φ</i> coat protein assembly by insertion, deletion and substitution mutagenesis. Oxford University Press	
	NPL156	Raz (1997) Springer Semin Immunopathol 19(2):131-7 -- Introduction: gene vaccination, current concepts and future directions. Springer-Verlag	
	NPL157	Raz, <i>et al.</i> (1996) Proc Natl Acad Sci U S A 93(10):5141-5 -- Preferential induction of a Th ₁ immune response and inhibition of specific IgE antibody formation by plasmid DNA immunization. National Academy of Sciences	
	NPL158	Sato, <i>et al.</i> (1996) Science 273(5273):352-4 -- Immunostimulatory DNA sequences necessary for effective intradermal gene immunization. American Association for the Advancement of Science	
	NPL159	Schwarz, <i>et al.</i> (June 2003) Eur J Immunol 33(6):1465-70 -- Role of Toll-like receptors in costimulating cytotoxic T cell responses. WILEY-VCH Verlag GMBH & Co.	
	NPL160	Serre, <i>et al.</i> (1998) J Immunol 161(11):6059-67 -- Efficient presentation of multivalent antigens targeted to various cell surface molecules of dendritic cells and surface Ig of antigen-specific B cells. The American Association of Immunologists	
	NPL161	Siegal, <i>et al.</i> (1999) Science 284(5421):1835-7 -- The nature of the principal type 1 interferon-producing cells in human blood. American Association for the Advancement of Science	
	NPL162	Storni, <i>et al.</i> (February 2004) J Immunol 172(3):1777-85 -- Nonmethylated CG motifs packaged into virus-like particles induce protective cytotoxic T cell responses in the absence of systemic side effects. The American Association of Immunologists, Inc.	

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Sheet	7	of	8	Attorney Docket Number	1700.0630000/BJD/WBC

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	NPL163	Takauji, <i>et al.</i> (November 2002) J Leukoc Biol 72(5):1011-9 -- CpG-DNA-induced IFN- α production involves p38 MAPK-dependent STAT1 phosphorylation in human plasmacytoid dendritic cell precursors. Wiley-Liss	
	NPL164	Tars, <i>et al.</i> (1997) J Mol Biol 271(5):759-73 -- The crystal structure of bacteriophage GA and a comparison of bacteriophages belonging to the major groups of <i>Escherichia coli</i> leviviruses. Academic Press Limited	
	NPL165	Uhlmann, <i>et al.</i> (March 2003) Curr Opin Drug Discov Devel 6(2):204-17 -- Recent advances in the development of immunostimulatory oligonucleotides. Current Drugs	
	NPL166	Van Ojik, <i>et al.</i> (October 2002) Ann. Oncol. 13:157-158 "Phase I/II study with CpG 7909 as adjuvant to vaccination with MAGE-3 protein in patients with MAGE-3 positive tumors," Oxford University Press, Abstract No. 5790	
	NPL167	Verthelyi, <i>et al.</i> (2001) J Immunol 166(4):2372-7 -- Human peripheral blood cells differentially recognize and respond to two distinct CpG motifs. The American Association of Immunologists	
	NPL168	Verthelyi, <i>et al.</i> (April 2004) AIDS 18(7):1003-8 -- CpG oligodeoxynucleotides improve the response to hepatitis B immunization in healthy and SIV-infected rhesus macaques. Lippincott Williams & Wilkins	
	NPL169	Vrtala, <i>et al.</i> (1998) J Immunol 160(12):6137-44 -- Immunization with purified natural and recombinant allergens induces mouse IgG1 antibodies that recognize similar epitopes as human IgE and inhibit the human IgE-allergen interaction and allergen-induced basophil degranulation. The American Association of Immunologists	
	NPL170	Wernes, <i>et al.</i> (1995) Gene 160(2):173-8 -- Expression of the measles virus nucleoprotein gene in <i>Escherichia coli</i> and assembly of nucleocapsid-like structures. Elsevier Science B.V.	
	NPL171	Weiner, G., (2000) "Declaration of Dr. George Weiner Under 37 CFR §1.32," submitted in support of US Application No. 09/286,098, 9 pages	
	NPL172	Weiner, <i>et al.</i> (1997) Proc Natl Acad Sci U S A 94(20):10833-7 -- Immunostimulatory oligodeoxynucleotides containing the CpG motif are effective as immune adjuvants in tumor antigen immunization. The National Academy of Sciences	

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	NPL173	Yamamoto, <i>et al.</i> (1992) J Immunol 148(12):4072-6 -- Unique palindromic sequences in synthetic oligonucleotides are required to induce IFN [correction of INF] and augment IFN-mediated [correction of INF] natural killer activity. The American Association of Immunologists	
	NPL174	Yamamoto, <i>et al.</i> (1994) Antisense Res Dev 4(2):119-22 -- Ability of oligonucleotides with certain palindromes to induce interferon production and augment natural killer cell activity is associated with their base length. Mary Ann Liebert, Inc.	
	NPL175	Yamamoto, <i>et al.</i> (1994) Jpn J Cancer Res 85(8):775-9 -- Synthetic oligonucleotides with certain palindromes stimulate interferon production of human peripheral blood lymphocytes <i>in vitro</i> . Japanese Cancer Association	
	NPL176	Yamamoto, <i>et al.</i> (2000) Springer Semin Immunopathol 22(1-2):11-9 -- The discovery of immunostimulatory DNA sequence. Springer-Verlag	
	NPL177	Yu, <i>et al.</i> (September 2002) Biochem Biophys Res Commun 297(1):83-90 -- Potent CpG oligonucleotides containing phosphodiester linkages: in vitro and in vivo immunostimulatory properties. Elsevier Science (USA)	
	NPL178	Zlotnick, <i>et al.</i> (2000) Virology 277(2):450-6 -- Mechanism of capsid assembly for an icosahedral plant virus. Academic Press	

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